Hobbies WEEKLY

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# A Non-flying Model Miniature of a "HORSA" GLIDER

HAVING provided our model aircraft enthusiasts with miniature designs for making most engine-powered, non-flying aeroplanes, a design for a model glider will be a welcome change, no doubt. We have, for a model, selected a rather versatile type of glider, namely, the "Horsa" type, this being used for carrying troops and equipment to war theatres in various parts of the world. A page of full size drawings are provided on Cover iv to help you go ahead.

### From a Solid Piece

Instead of the usual procedure of building, the fuselage in shaped layers of wood, it can be cut conveniently from a solid piece measuring 7ins. long by 1⅞in. or ⅞in. thick. It is only necessary to mark out the side shape on the wood, cut it, then mark out the top shape and pare and plane the waste away.

However, before you start cutting, the main wing dovetail should be carefully done, using a fine tenon saw and a sharp 1in. wide wood chisel. The next part to cut is the slot at the tail end of the work, this measuring 1½ins. long by ⅛in. wide. A sharpened large-size bradawl makes an excellent ⅛in. cutting chisel.

It is advisable to drill the six port holes (at each side of the fuselage) with a 3/16in. drill to about 1/16in. deep. It saves marking out with compasses later on and also helps to make the port holes look more realistic. The drilling, of course, is not done until the fuselage is finally shaped. With the exception of the nose end, the fuselage is rounded in section, particularly at the tail end. At the nose end, at the bottom, the shaping is somewhat flattish. The cabin is, as you will see, cut at flat angles (like a diamond) to be as sharp as possible at the corners.

### The Main Wing

Rather than merely have the main wing fixed on with glue and nails, we have it a dovetail fit in the fuselage. So, fit it neatly first, planing the edges slightly tapering so the wood wedges itself in the dovetail slot.

Prior to gluing in position, the underside is planed away to taper to

Patterns on Cover iv

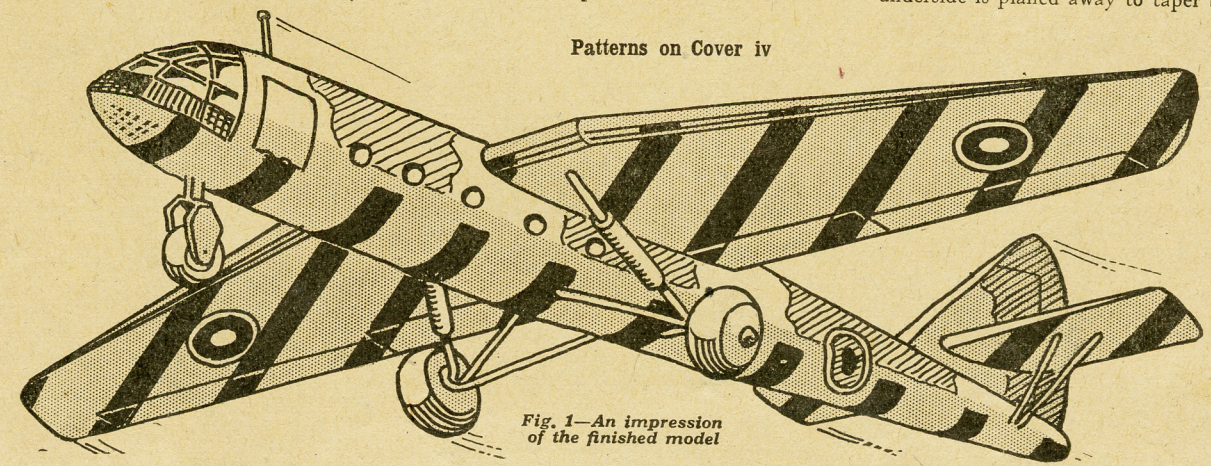


*Fig. 1—An impression of the finished model*

1/16in. at the tips (see front view, Fig. 3). The rest of the wing is shaped to the usual streamline section, but avoiding to shape the centre until the wing is glued in position. As shown by the top view, Fig. 2, the underside and top surface of the wing is shaped to suit the curvature of the fuselage.

This is a tricky job, but it can be done easily enough by taking extra care. Matters will go more smoothly if you sharpen the penknife keen and pay particular attention to the direction of the grain. File, rasp and glasspaper will finish off the shaping.

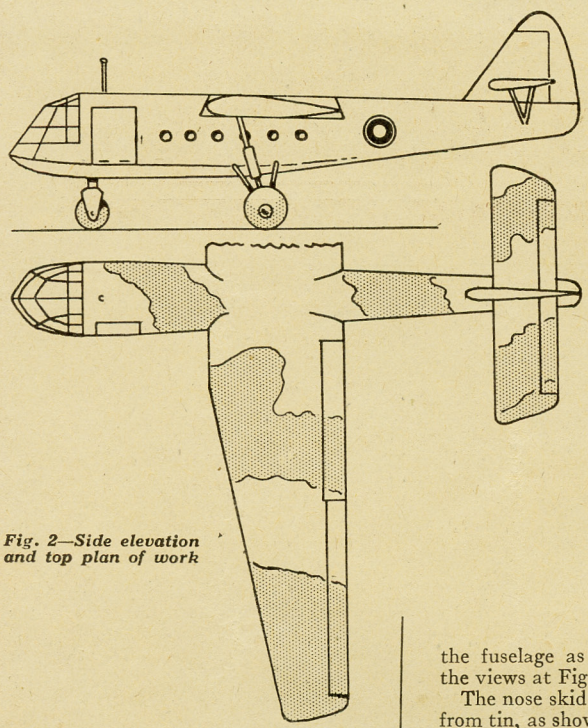


*Fig. 2—Side elevation and top plan of work*

### Fin and Tail

The tail, you will notice, is raised high on the fin. The tail is shaped to fit in the slot cut in the tail. As a result, the slot must be accurately cut out and not be at an angle, otherwise the tail will be at the same angle.

The " root " part of the tail, as indicated by the dotted lines on the pattern, must not be shaped when you begin to streamline the work. Having both tail and fin shaped and smoothed up, glue the former centrally in the latter, then glue the tail root into the fuselage slot.

Take special care when forcing the tail into the fin slot, if you have to do that. The wood, being rather short-grained, is liable to split, especially if a soft wood like deal is adopted. Be on the safe side and have the tail a neat, but free fit ; the glue will fix it effectively, including a " cornering " of plastic wood brushed in with the tip of a finger.

The undercarriage parts require little description, for the different views are self-explanatory. However, we should say that large, heavy pawn pins would make effective wheel axles when bent as shown. The " leg " casing is either a piece of ⅛in. dowelling or a strip of gummed paper rolled around the pin shafting.

Before adding the casing, of course, the wheel must be put on. The axle support—which resembles a cotter (split) pin, is fixed on, following which the parts are fixed to the underside of the fuselage as can be judged from the views at Figs. 1, 2 and 3.

The nose skid wheel is cut and bent from tin, as shown. The wheel is fixed between the fork with a shortened panel pin. A hole is then made in the fuselage for the insertion of the top end of the wheel fork, the small resultant cavities being sealed up with plastic wood or putty.

### Finishing Details

For a finish, give the top half of the whole work a camouflage finish, using dark brown and green poster colours. The bottom half is coated with dark grey poster paint, then the black stripes applied.

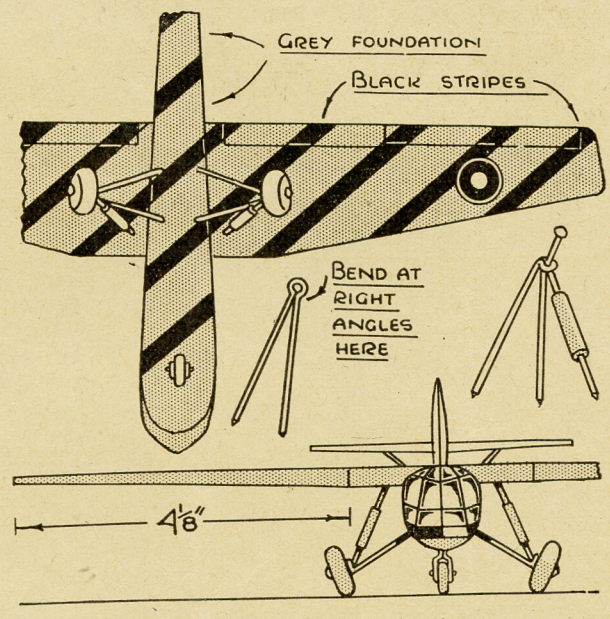



*Fig. 3—Under view and front elevation*

Now, one trouble with poster paint is that one colour is soluble on the other. Therefore, while the black stripes on the grey foundation will not produce any marked difference in colour, one must be very careful in respect to the camouflage colours.

It is advisable to lightly pencil on the wavy, wriggly patches and apply the colour exactly to the edges of the lines. Apply the green colour first. When dry, apply the brown colour. It will not matter greatly if you overlap the green colour slightly, but overlapping should be avoided as much as possible.

To fix poster colours, you can either rub them smooth with the palm of the hand and the finger tips, smearing a trace of white shoe polish cream on same. The cream gives a thin waterproof coating to the colours. A thin coat of clear varnish or shellac stuff (french polish) may be the best.

### Cabin and Roundels

The cabin windows are suggested by first applying a coating of chinese white colouring, allowing to dry, then drawing on the " frames " with black poster paint. The roundels (targets) are done in the usual (present) war-time colours. Other lines are done with black paint, but black waterproof ink, such as indian drawing ink, may be the safest thing to use, as it is not so liable to mix with poster colouring.

If you have no black poster paint, the stripes could be done with dark (ultramarine) blue stuff, including all line work. Single coats of poster colour are always transparent on new wood surfaces, so if it is your intention to apply a single coat of each colour make sure that there are no pencil marks on the wood excepting those which will be covered with black stuff.

**Free Design Next Week for a novel CIGARETTE DELIVERY BOX**

# Fretsaw and chisels provide the making of striking CARVED BOOK-ENDS

AMONG our many workers may be found a number who take an interest in simple carving, combined with fretwork. In Gothic tracery work, such as in church windows, etc., one may see typical examples of carving as applied to fretwork, although the saw in this latter case was known as the scroll saw.

Our article here is intended for the beginner with the carving tool, and so the effect is chiefly gained by the simple process of grounding out to obtain a low relief figure, and with the vee tool and small chisel and gouge to heighten the raised parts.

The two quaint bookstands illustrated, form admirable pieces for the amateur carver to practise upon. The actual construction of the bookstands can be seen from Fig. 1. Two solid ends are cut with the fretsaw and then connected with a plain floor and back with a rail as stiffener beneath the former.

### The Outlines

To get the correct outline of the birds, the squared diagrams, Figs. 2 and 3, should be used. A piece of wood for each end 8ins. long by 5½ins. wide is wanted, and we recommend ⅜in. or ½in. thick wood as being best.

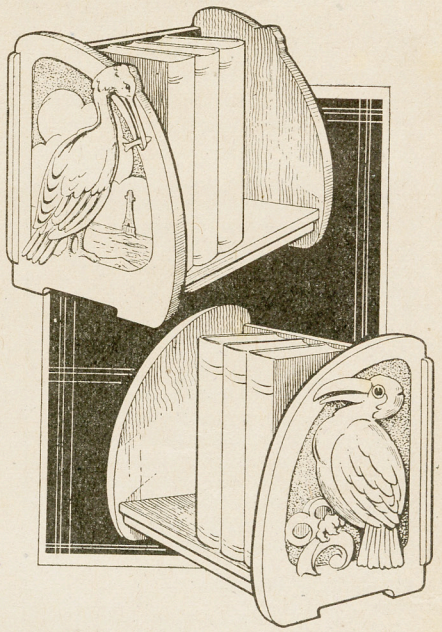
For the beginner a soft wood, too, would be preferable to oak, although with plenty of practice the carver should soon be able to use the latter wood which is considered the ideal wood for all carved work.

Cut the pieces square and then set out the series of 1in. squares in pencil, afterwards lining in the detail carefully with a sharp decided line. Clamp a fairly coarse saw in the fret frame and cut round both pieces to the outline.

As the back of the stand is recessed into the ends, the recesses should be cut to the inner line shown, so that when the back is screwed in the whole surface is flush at the back.

The back is made about 12ins. long, 6½ins. wide and ¼in. thick. The floor is 5ins. wide and of the same thickness as the back. The method of screwing the parts together is countersunk screws and the ¼in. projections of the back beyond the ends.

The ends are fixed to the floor with countersunk screws or they may be dowelled with 3/16in. wood pins to the floor. Additional gluing blocks may be added as further strengthening as shown in Fig. 1. The shallow rail running under the front of the floor is screwed from above. The construction of both bookstands is the same.



### Carving the Patterns

Now in commencing to work the design, cut in, or sink the outline of the back panel, which contains the bird. Cut to a depth of ⅛in. or perhaps a little more with a wide, flat chisel for the straight lines.

Then proceed with a narrower chisel or a gouge for the curved lines. Sink in the outline round the breast and the back of the birds, and finally chisel away the background. Take a little off at a time in preference to long and large pieces.

Practice on a piece of odd wood of the same variety as that being used for the stands, will greatly help to find the correct cut, and method of carving with and against the grain.

The feathers in many cases can be carved in best with an ordinary pocket knife sharpened well towards the tip. The recessed background round the birds should be matted with a three or four-point tool.

The lighthouse and the clouds in the cormorant design are cut in with a vee tool. Or here again the pocket knife may be used to good advantage.

In order to get a satisfactory finish you must, of course, take great pains with your work—particularly so far as the carving is concerned.

Do not attempt to cut too much at once. Rather whittle it off a little at a time, gradually reducing to the shape required. Patience and care are two virtues to remember.

When the carving is finished, the woodwork may be stained to the desired depth and finally all parts secured together. Good grade carving tools may be purchased from Hobbies—a full description of each tool required should be given when ordering. Matting tools can also be supplied.

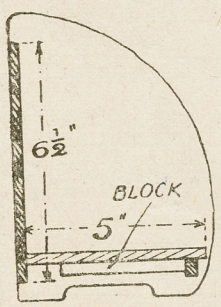



*Fig. 1—End details*

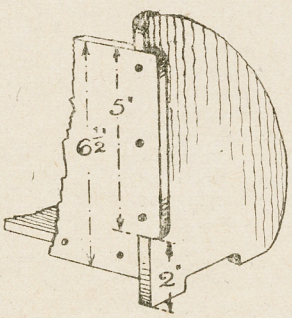



*Fig. 4—The back rail fixing*

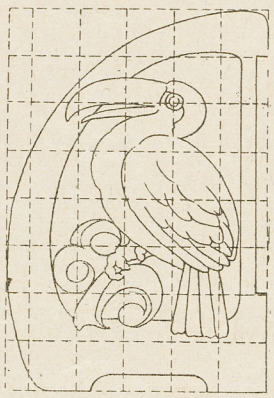


*Fig. 2—Outline of bird*

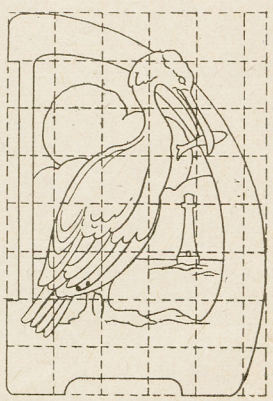


*Fig. 3—Another bird suggestion*

# How the amateur can make a profession of COMMERCIAL PHOTOGRAPHY

THIS article is going to be a complete breakaway from those on Photography which have been regularly appearing in Hobbies Weekly. It is to be more serious than usual for it is not about Photography as a hobby but rather as an occupation or career.

During the last 30 years there has been a very steady increase in the application of photography in the many and varied spheres which go to make the daily routine of our lives. The illustrated papers and journals, together with the cinema, are a proof of this. The last four years, however, have proved without any doubt that what was once only a hobby for many thousands and a profession for a few hundreds has become a most important factor in Engineering, Shipbuilding, Motor Car construction, Architecture, Science, Medical Research, Commerce, Banking and in fact, almost every branch of labour.

### Photography Prospects

If this is a surprise to any reader he will probably be anxious to know a little more about the prospects for anyone who is really keen on camera work. So it will be advisable to consider the whole question from the point of view of a career.

Today, in nearly every large manufacturing concern, there are men and women employed making negatives or prints of the products of the firm and they are under the charge of the photographic expert. In many cases this expert, a few years ago, was only interested in his camera for getting records of happy incidents in the family and the taking of a few pictures when on holiday.

Then he became interested in a branch known as Commercial Photography and it may be his employer asked him to take a photograph of a new machine or a section of a piece of mechanical plant, or possibly a new room which had been added to the works.

### How to get on

He did the job successfully and became rather keen to understand this side of the work and so made a study of it by reading text books and examining the work of others who were specialising in it.

You will realise that, like all other branches of employment, to be successful you have got to know your work, and the more you know about this remarkable and widespread subject of photography the more you are likely to earn.

You may have a desire to enter the world of engineering, building, farming or any other and if you are a camera owner you can soon find out what are the chances for a photographer in that particular sphere. The next move is to ascertain the nearest school where photography is being taught. By this is meant all about lenses, developing and printing, lighting for various subjects, exposure and the many items which it is essential you should know.

### A School Course

The most famous school in London is The Polytechnic School of Photography, Regent St., where a very full and complete course is given to the students over a period of two years which can be extended for another year for specialising in any branch.

Failing the opportunity for practical study at a School you must read some of the books which have been recently published and then make some practical tests off your own bat. Opportunities of employment are very good and as far as one can judge these will be even better in post-war time.

### Earn a Diploma

Employers have and are having everywhere definite proof of the value of photography in the saving of labour and expense, and in the power it has in increasing the output and aiding their sales department.

When you feel capable of sitting for a qualifying examination, such as is now offered to pupils and assistants, you should do so in order to get the diploma of efficiency which employers in certain directions are glad to see. It is quite common for a student to leave a school with this certificate and to be offered £3 or more per week to start and it is for him or her to prove whether more should be paid in a few months' time.

A first-class professional Commercial

# Here is a novel method of making A HOME-MADE HAMMER

HAMMERS, sometimes, are either too large or too small, or too light or rather heavy, so far as the fretworker and model-maker is concerned and the different kinds of work undertaken. Those who require a small, light hammer will be interested in the type shown in the diagram herewith.

It is made from a piece of ⅜in. thick wood, such as oak or birch, and a 2in. long by ⅜in. thick hexagon-headed iron bolt, plus two suitable thin nuts. The bolt and nuts, of course, form the "head" of the hammer.

### Handle and Head

Having obtained a bolt of the dimensions stated, a handle is made, using a piece of wood 7ins. by 1in. by ⅜in. Cut, or bore, a ⅜in. hole through the top end of the wood, this being done after scribing an 1in. diam. circle with the compasses.

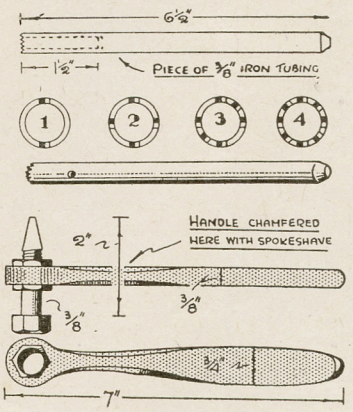
Pencil out the handle shape, then cut the waste wood away. Note how the handle is chamfered. Do this with a penknife or a spokeshave, then glasspaper the wood smooth.

To fit the bolt, screw on one nut as far as it will go, put on the handle, then add the second nut, tightening it on with a spanner or the nippers. This completes the unusual, but useful, hammer.

Now, if desire, you could point the end of the bolt as shown. You will require a grindstone for the purpose. A flat bevel is ground on two sides of the bolt shank, then the threads are removed from the remaining sides. It is better to have a pointed end on the hammer, for one can tap tiny fretwork nails into the wood much easier.

The point, you see, gets between the thumb and finger of the left hand so that the shortest nail can be held and driven into the wood preparatory to using the flat end of the hammer, i.e., the face end.

For a handle, ¼in. fretwood would serve, incidentally. It should be, preferably, oak or birch, or even ash. One thing about this novel hammer is that the head will never fly off while using it, thanks to the way the handle is fixed on.



photographer will ask as much as 3 guineas for a single print for reproduction purposes and he can often give useful advice to his employer regarding lighting in the factory. How to reduce the movements and labour of individuals working at machines for instance. Such a man has originality and is bent on making himself useful in other ways, but all connected with his professional job of photography.

There is another branch of commerce or industry where the photographic department is being used and will be used more regularly when war work is finished. That connected with sales.

Much greater effort will be needed to get trade back to normal especially as regards export markets. Advertising will be required and it will have to be of a type greater in appeal than what we have been accustomed to.

### For Export Publicity

The colonial buyer will have to be told and shown what sort of article he is expected to buy and for these reasons photography will be the important factor in preparing catalogues, booklets, leaflets and magazine advertisements. The representatives on the road will be carrying actual photographs of machinery, radio, cars, toys, small and large tools and thousands of commodities.

This, then, is briefly how you, a keen amateur photographer, can turn your hobby into work having a professional status, full of variety and change with abundant opportunities for displaying individualism or originality. It is work which will carry with it an atmosphere of art and, provided you possess ability and can show efficiency a good remuneration is assured.

As regards apparatus this must be left until special work is discussed in these columns, but generally it is necessary to have a stand camera with double or triple extension and a good make of lens and of course, the focussing screen. Other needs will be dealt with later.

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## A game for causing endless fun is found in this

# BALL-ROLLING PUZZLE

A TYPE of hand-puzzle which seems to be rather neglected by the woodworker is the rolling ball kind. Generally this sort of puzzle is constructed of metal and makes use of balls no bigger than those found in a bicycle (and sometimes much less) which have, by careful and skilful manipulation, to be coaxed into small hemispherical holes.

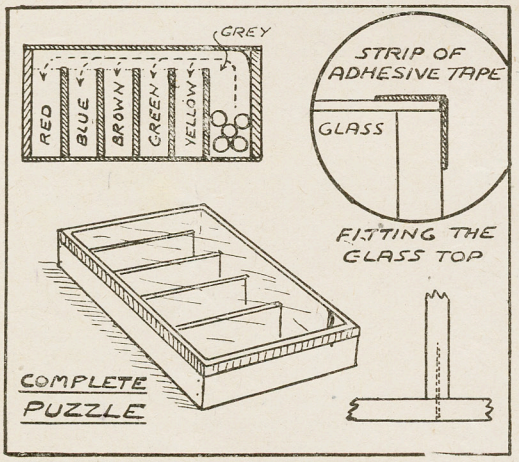



*Fig. 1—The finished game and details of the parts*

In the woodworker's rendering of this kind of puzzle the spheres used have of necessity to be larger and the whole box of a more comprehensive nature.

### Coloured Balls

Fig. 1 shows details of a simply-made, but quite hard to solve puzzle of this kind. Five balls of differing colours have to be manipulated from the end "home" into the five compartments showing corresponding colours. Thus a red sphere must be worked into the red compartment, the blue into the blue, and so on.

It is obvious that the exact over-all dimensions of the box are not of great importance, and may be varied with the special use to which the puzzle will be put. Thus, if being made as a present for a small child the box may be quite big and sturdy, but if for adult use a small refined article would fit the requirements better. Speaking generally, however, 7ins. by 4ins. is a satisfactory size for all-round service.

The box is built up of ⅜in. wood for the sides and base; and ¼in. material for the end-pieces. The partitions are strips of 3/16in. wood. Sides and base are secured to the ends by ½in. pins and a touch of glue, and the partitions are fixed in the same manner.

All the pins must be inserted very carefully, but make a strong job of the joints when taken well home. Full dimensions for the parts are given in Fig. 2.

Note the small corner piece "B" which assists the easy running of the balls. Put in a triangular piece of wood first and then take out the inner side to a nice curve with a gouge. Glue or pins may be employed for securing this piece.

When the partitions are all in position give each of the compartments so formed a coat of paint. Each compartment must be of a different colour and should be as bright and contrasting as possible. The walls as well as the base of each compartment should be treated.

Any colours will of course do, but red, blue, yellow, green and brown in this order would be a very suitable selection. The "path" along the top and the "home" from which the balls start are given an outstanding colour, say grey, so as not to cause confusion with the compartments.

The balls used are ordinary marbles and must each be given a coat of paint to correspond with a compartment. Again, exact size is not important but for a puzzle of the dimensions given marbles of about ½in. diameter do very well.

### Fitting Glass Top

At this juncture the outside of the box should be treated with a coat of stain, and polished if desired. Finally comes the fitting of the glass top. The rectangle of glass must be cut pretty accurately to fit over the top of the sides and ends, where it is held in position by a strip of adhesive or glued tape which goes over the glass and along the tops of the sides and ends as shown.

A puzzle of this nature lends itself very well to imaginative treatment.

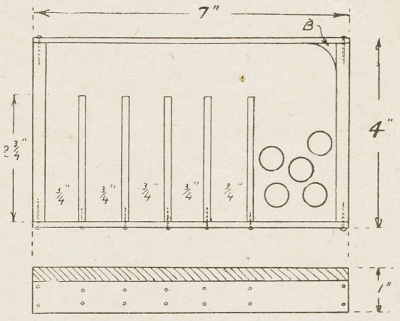



*Fig. 2—Dimensions of the parts needed*

A simple box with, say, only three compartments could be made for a very small child, and even more compartments than suggested added for adults to test their dexterity. Also, the compartments could be laid out to a different design. It will be found that the design given will be quite hard enough for the average person, however.

He can make a larger puzzle when he has really mastered this one.

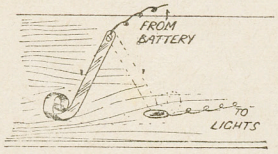
# How you can effectively introduce LIGHTING MODELS

MANY readers completing models of railway buildings, farm houses, churches, dolls' houses, etc., and are anxious to fit miniature electric lighting in the interiors will, it is hoped, find these few hints useful. The lighting of railway buildings is usually desirable and the illustration of a signal-box shows a simple method to adopt.

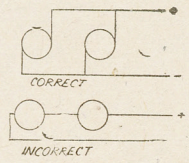
This building is of wood with a hinged roof and has a ready-made bulb holder, a small bakelite mounting obtainable for a few pence at most electrical shops. The method of wiring is clearly shown. It runs down inside the building to be pushed through a hole punched in the short tinplate cylinders (indicated by arrow), and tightly twisted with a pair of pliers.

### Connecting Points

These ' cylinders ' are nothing more than tin strip twisted round a pair of tapered jaw plies and set with strong glue into holes drilled through the side of the signal-box. The connections from the battery are made by double covered wire ending in two small wander plugs which are still easy to buy.




*A simple switch*




*Right and wrong wiring*

This method is ideal for the portable building, but if it is permanently fixed to a baseboard the wire is simply carried up through a hole drilled through the floor and attached to the bulb holder direct—so saving the cost of wander plugs.

### Sources of Light

If more than one bulb is required in a single building the drawing shows the correct method of attaching them to a battery. A large high tension battery with 1.5, 2.5, or 3.5 low voltage tappings will last for a longer period and is more economical than using small batteries for current supply. Other usual sources of power are the accumulator or mains transformer.

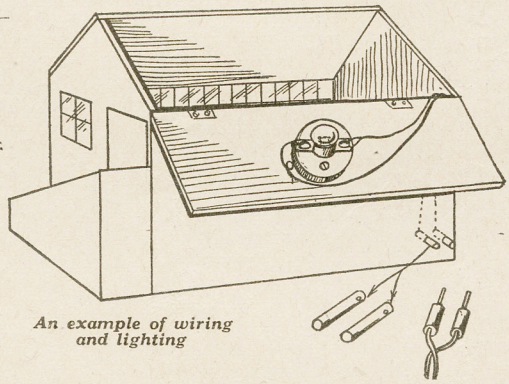
The accumulator has an advantage over the battery in that it may be re-charged when exhausted, which is a consideration to bear in mind. The transformer, having a connection direct from the house electricity supply and with an out-put voltage of between 1.5, and 3.5., has the advantage of providing a continuous steady current as long as it is connected.

### Bulb Care

The bulbs should be exactly the same voltage as that marked on the battery, accumulator or transformer, and the number of bulbs your power supply will light depends, of course, entirely upon the output of it, but the electrician who supplies it will be able to give you some idea in this connection.

The small switch illustrated is easily made from a block of wood, as the base, with a strip of tin-plate screwed upon it in the manner shown and bent up to form a handle.

A lead is then carried from the screw to the negative terminal on the battery, while a drawing pin is pushed into the base, as indicated, carrying a lead to the bulb. By pushing over the handle on to the drawing pin the negative current will flow to the light, while the positive lead from the battery by-passes the switch and goes direct to the bulb.



*An example of wiring and lighting*

A panel-pin may be tapped into the wooden base as illustrated each side of the switch to prevent it swinging over too far. Many of these simple switches may be mounted on a single strip of wood by the control panel (on a miniature railway), providing independent control for all lighting.

If a number of these are being used for a large layout, the appropriate name of each switch control will have to be put near. It can relate to distant or home signals, platforms, cabins, etc., and be printed on paper glued to the base.

# The Editor's Notebook

IT is probably only to be expected that the men of the navy have greater possibilities for their hobbies than those in the services ashore. You see, even when off duty they cannot stroll down town, or go to the pictures, or even " go out " at all. In consequence they have to make their own amusement and I have a varied mail from those who turn to hobbies to while away the time. In big ships, where you have about a thousand men aboard, you can imagine the range of interests there are to be found in the different messes.

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I KNOW of a clever painter in oils, for instance, who is able to get some brilliant pictures of real life at sea. Then there is a Lt.-Commander who makes a hobby of repairing watches (the sort you wind, not a period of duty) and during his 30 years in the Navy must have found it a profitable pastime. Naturally there are many builders of model ships and aircraft (principally from our designs) and one piece of work by a Southsea Petty Officer is a magnificent doll's house with every modern convenience, including bathroom and electric light throughout. Of course, you get the inevitable poet, as well as some little known hobbies such as making rope sandals, knitting pullovers, and undertaking fancy leather work. A list of pastimes undertaken at sea would certainly prove lengthy, varied and interesting.

* * *

NAVY men naturally like to make models of the particular ship in which they serve, and our range of designs—from K.G.V. (as the navy calls the great battleship) to a submarine, are in much demand. They must not, however, be too thorough because their knowledge, transferred to a model might become useful if it fell into unfriendly hands. If they are too true to detail these models have to be censored, and the secret parts omitted. I have known that happen on occasion.

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JUST to show you can never get too old to enjoy a hobby read about Lord Hayter, the managing director of the firm which makes the famous Chubb safes. He was 95 in August and spends much of his time weaving wall screens and tapestries in coloured wool on canvas. Naturally he has also made a collection of safes and locks, and one of Chinese workmanship actually goes back to the time of Confucius, about 500 B.C. !

**The Editor**

# Some helpful hints for better and more economical BLACK-OUT FLASHLAMPS

NOW that the dark nights are here again, everyone carries a torch or flashlamp of some sort. As you know, a bright, wide beam is illegal, even though it is directed upon the ground. Users of large torches usually get out of the difficulty of broad beams of light by fitting a mask over the top of the bulb, just behind the glass front.

This mask is merely a disc of cardboard with a suitable small hole, about ¼in. or ⅜in. in diameter, cut in the centre of it. The mask serves to "diffuse" the light, but a "frosted" effect is much better and safer.

A thin jet of light, as afforded by a mask of the type mentioned, means a mere spot-light on the ground. In order to see in front of one, the torch needs to be directed upwards. A large, diffused beam, on the other hand, gives a wide radius of glowing light so it is not necessary to direct the beam upwards.

Policemen and A.R.P. wardens are always on the look out for "head light" torch users. The raising of the bright beam, diffused or masked, is usually done unconsciously, particularly if one thinks one is walking into a lamp-post or about to bump into other people.

Even after three years of war, people are still breaking the A.R.P. regulations, usually unintentionally. A spot-light is O.K. on vehicles, but the pedestrian is advised to have a diffused beam. How can one obtain this kind of beam?

Very easily. A scrap of thin tissue paper placed over the bulb will give the desired result. Another plan is to have a light blue beam. This is a "safe" colour, and can be obtained by fitting a disc of light blue celluloid behind the glass.

The writer uses several discs of cleaned, exposed X-ray film. The film is very light blue, so that the greater the number of discs used, the bluer the shade of the light. A good feature with the celluloid is that a "plain" light is produced—there is in other words, no "mist" with it, as is the case of "frosted" lights.

Another point. Look after your torches, even though cases and batteries are now plentiful. It is wrong, for instance, to use a torch in the rain, then put it in the pocket of a damp coat, hang it up and forget all about it until you want it again.

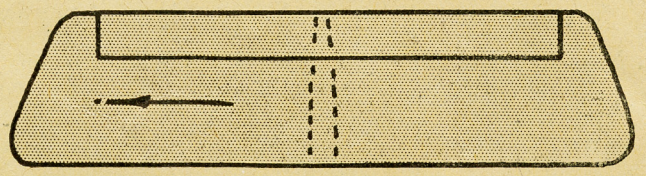
The dampness is bound to creep into the interior of the case which, being of metal, is sure to rust, whereas the battery itself is apt to swell so that it is difficult to remove. The only remedy is such cases to unscrew all movable fittings from the case and place the body of it, containing the swollen battery, beside a fire to dry out.

The battery may then be pushed out. If sticking, as it is likely to be, you will have to force it out by means of a short length of stick, such as a dowel. Grip the torch casing in both hands, place the end of the stick on the end of the battery, with the other end against your chest, or on the floor, and force the stick into the casing.

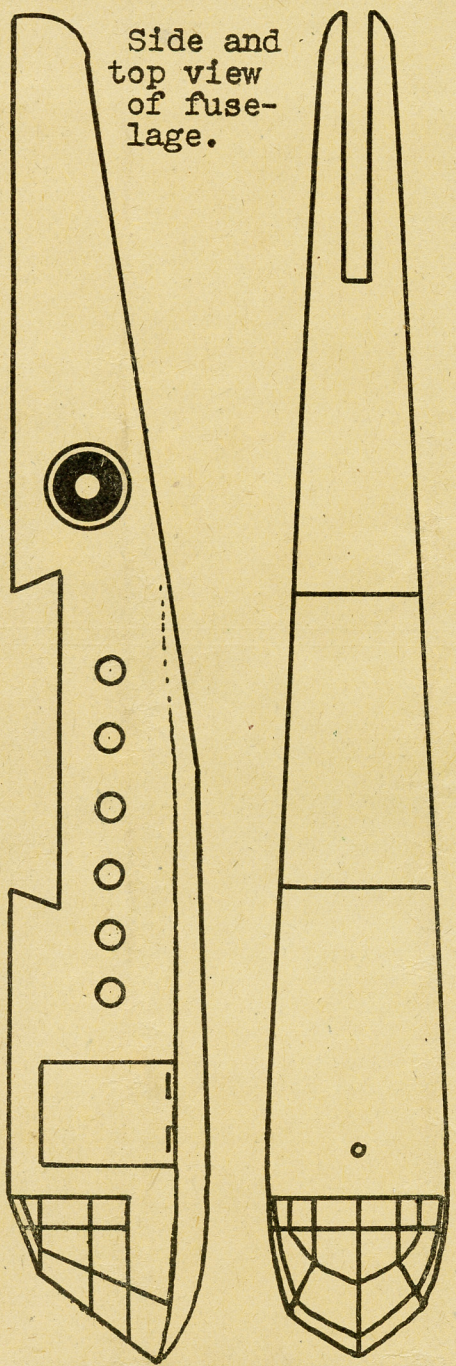
A thin knife blade, inserted and worked around the old battery, will do much to free it. In the case of torches of small size, such as the popular No. 8 class, remember that the battery consists of two small cells placed end to end in a cardboard covering.

By uncurling the turn-over at the bottom, it is possible to push out the cells, leaving the cardboard covering still sticking inside the casing.

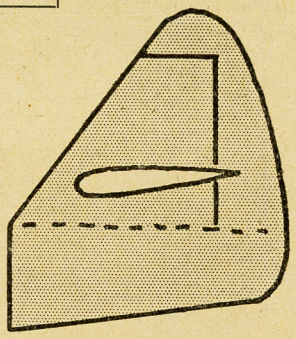
# Patterns for making a non-flying model "HORSA" GLIDER



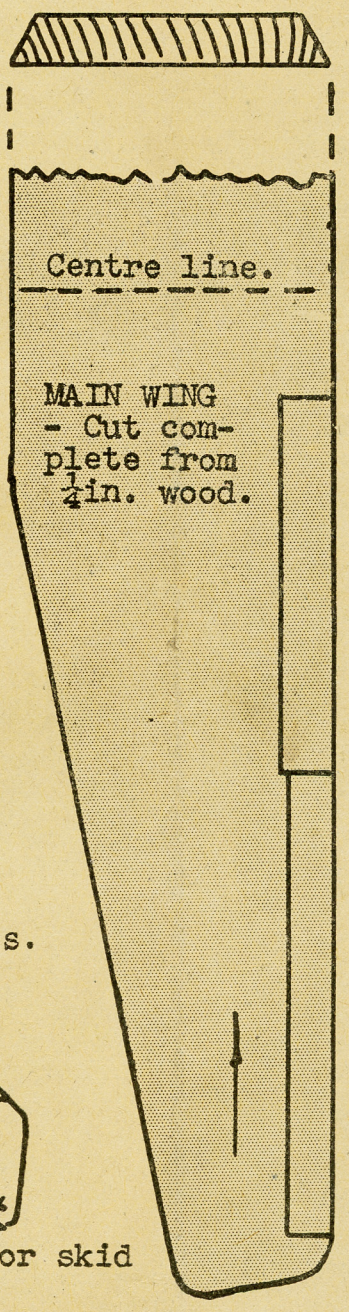
TAIL - Cut from $\frac{1}{8}$in. wood.



Side and top view of fuselage.

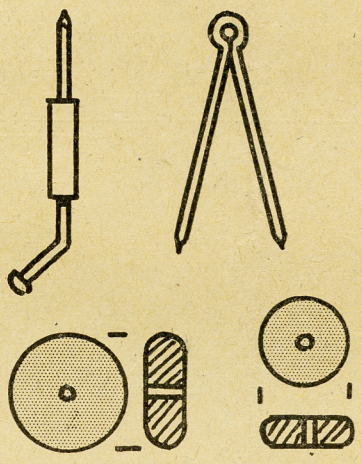


FIN - Cut from $\frac{1}{8}$in. wood.

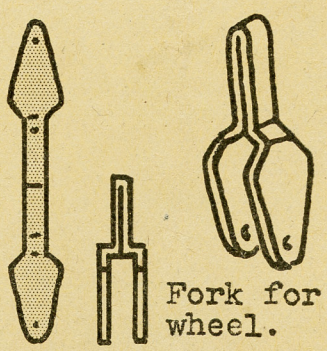


Centre line.

MAIN WING - Cut complete from $\frac{1}{4}$in. wood.



Undercarriage parts.



Fork for skid wheel.

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